

Module III

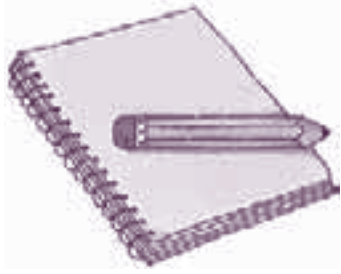
Stock Markets & Portfolios



Prerequisite Skills

To work through this unit, students will need to:

- understand the basics of financial literacy explored in Modules I and II
- complete and draw tables and charts
- access and organize data (including understanding how to access a Web site given its URL)



Teacher Notes

Students will understand dividends as a source of income from stocks, and begin to assess the ability of stocks to increase the potential growth rate of their money.

Making Connections

How are stocks beneficial to both companies and investors? Why do companies pay dividends or interest?

What factors would you consider when choosing stocks? e.g. “green” stocks, treatment of employees, the effect of the company on the local economy.

Activity 11 – Why Buy Stocks?

Expectations

Students will:

- develop an understanding of dividends and capital gain/loss,
- calculate *return on investment*,
- understand how to monitor stocks,
- understand how to conduct field comparisons,
- create reports including tables and graphs with a rationale for choices, and
- be introduced to new terms related to money management.

Assessment Tools

Suggested for use with this activity:

- Performance Problem
- Observation
- Journal

Co-operative Group Strategies

- Pairs Explore
- Class Share
- Roundtable
- Brainstorm

Instructional Steps

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| 1 | <p>Introductory Activity: Begin the class with “Name That Term” (page 150) to review the terms learned in the previous activity. Ask students to define each term.</p> <ul style="list-style-type: none"> • As a class, discuss each term and its correct definition. |
| 2 | <p>Authentic Activity: Using <i>pairs explore</i> ask students to read “Why Buy Stocks? – Dividends & Capital Gains” on page 152 and then use the Internet and/or a dictionary to answer the “discuss” questions.</p> <ul style="list-style-type: none"> • While they are working, ask each group to place their “discuss” answers on chart paper and display them around the room. • Use <i>class share</i> to reinforce the key points of the “discuss” activity. Key points include how to calculate profit, and how this translates into benefits to shareholders. |

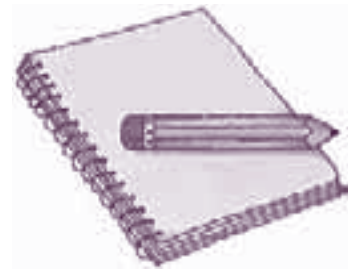
	<ul style="list-style-type: none"> • Define return on investment for students. • In pairs, students read page 153 “Calculating Yield and Return on Investment” and complete exercises 1 to 3. • Students complete exercises 4 to 7 individually. • Students present exercises 1 to 7.
3	<p>Investigation: In groups of four, have students use <i>roundtable</i> to answer questions 1 and 2 of “Rank the Companies as Investments” (page 155) on overheads. <i>Class share</i> the answers to these questions.</p> <ul style="list-style-type: none"> • Ask students to work independently to complete exercises 3 and 4 on page 156.
4	<p>Internet Investigation: Students work in pairs to complete the Internet Investigation on page 156.</p>
5	<p>Closure: As a class, <i>brainstorm</i> the main concepts and formulas introduced in the Activity. Use this to create a summary note.</p>

Assessment

- 1 Complete the Internet Investigation as a *performance problem*.
- 2 Use *observation* to assess students’ communication skills.
- 3 Students write a *procedural journal* to outline how they would choose an investment from the stock page. Ask them to use at least 3 of the terms and one of the formulas they learned in the activity.
- 4 Use student work from exercises 3 and 4 on page 156 of the Investigation as a *performance problem*.

Terms

- | | | |
|----------------------|-------------------------------|------------------------|
| • Dividend | • Profit | • Return on investment |
| • Earnings per share | • Retained earnings | • Revenue |
| • Expenses | • Retained earnings per share | • Yield |
| • Fiscal year | | |



Teacher Notes

Assigning homework, such as a procedural journal, reinforces learning and deepens understanding. It is essential for homework to be assessed and for students to receive feedback.

Activity 12 – The Law of Supply & Demand

Expectations

Students will:

- explore the law of supply and demand,
- apply this law to begin to evaluate stocks,
- assess data and form conclusions, justifying reasoning, and
- be introduced to new terms related to money management.

Assessment Tools

Suggested for use with this activity:

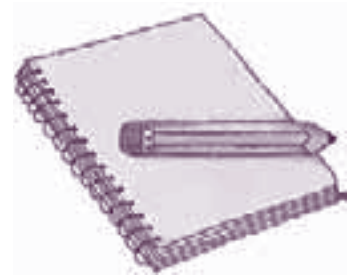
- Journal
- Interview
- Observation
- Performance Problem

Co-operative Group Strategies

- Think-Pair-Share
- Corners
- Class Share
- Brainstorm

Instructional Steps

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|----------|--|
| 1 | <p>Introductory Activity: Using <i>think-pair-share</i>, ask students to read “The Law of Supply & Demand” (page 161) and answer the “discuss” questions.</p> <ul style="list-style-type: none"> • Pair two groups to share their answers. |
| 2 | <p>Authentic Activity: Provide groups of students with current articles on the topic of fuel from the newspaper. Have each group summarize their article and share with the class. Discuss circumstances that could alter supply and demand in that situation.</p> <ul style="list-style-type: none"> • Use <i>corners</i> to complete the exercises on page 162, “What Determines Price?”. Label four corners as follows: high demand/high supply; high demand/low supply; low demand/high supply; and low demand/low supply. Ask students to read and think about this page. Using an overhead of the scenarios, show scenario 1 and ask students to move to the corner that represents their view. |



Teacher Notes

The law of supply and demand provides a foundation for understanding fluctuations in stock prices.

Making Connections

How does the law of supply and demand affect how much people are paid? (You may want to refer back to Activity 2.)

Your Notes

	<ul style="list-style-type: none"> • Students share their rationale with a partner. Ask one person from each corner to give a rationale for their decision. • Repeat with the next scenarios until all 10 have been done.
3	<p>Investigation: Using <i>think-pair-share</i>, students read “Using <i>P/E</i> Ratios to Assess Demand” on page 163, then complete exercises 1 to 4.</p> <ul style="list-style-type: none"> • Class share these answers. • Ask students to individually complete exercise 5 on pages 163 and 164.
4	<p>Closure: Students <i>brainstorm</i> key concepts that should be added to their <i>journals</i>. Have students create questions for their notes that address these key concepts.</p>
5	<p>Extension: Have students use <i>pairs share</i> to think what would happen to the <i>P/E</i> ratio if either <i>P</i> or <i>E</i> was held constant. Have students test their conjectures by first keeping <i>E</i> then <i>P</i> constant and changing <i>P</i> and <i>E</i> respectively.</p> <ul style="list-style-type: none"> • <i>Class share</i> group results.

Assessment

- 1 Ask students to place exercise 3 from the Investigation in their *journals*.
- 2 Use an *interview* to assess the student’s understanding of the law of supply and demand and the main terms and calculations relating to it. This could occur while they are working on exercise 5.
- 3 Use *observation* to assess students’ skills for “listening to other’s ideas”.
- 4 Write a procedural *journal* for Investigation exercise 5.
- 5 Submit the solution to Investigation exercise 5 as a *performance problem*.

Terms

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|----------------|----------------------------|--------------------|
| • High demand | • Law of Supply and Demand | • <i>P/E</i> Ratio |
| • Large supply | • Low demand | • Short supply |

Activity 13 – Selecting Investments For Your Portfolio

Expectations

Students will:

- be introduced to the risk-reward relationship,
- determine personal risk tolerance,
- begin to create portfolios,
- calculate volatility of investments and use this formula for analysis of risk factor, and
- be introduced to new terms related to money management.

Assessment Tools

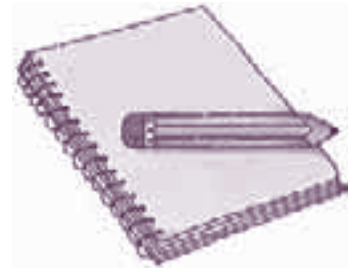
Suggested for use with this activity:

- Observation
- Journal
- Performance Task
- Presentation
- Portfolio

Co-operative Group Strategies

- Three-Step-Interview
- Class Share
- Pairs Explore
- Pairs Share
- Pairs Coach

Instructional Steps	
1	<p>Introductory Activity: Ask students to use <i>three-step-interview</i> to choose 10 companies they would like to invest in.</p> <ul style="list-style-type: none"> • Ask students to provide reasoning for their choices.
2	<p>Authentic Activity: Ask students to individually read “Selecting Investments for Your Portfolio,” page 172, and <i>class share</i> to discuss the pros and cons of taking risks in investments.</p> <ul style="list-style-type: none"> • Students complete Investor Profile Self Test on page 173. • Students score their own tests. Group students into the three score ranges identified on page 174 “Investment Risk Categories”.



Teacher Notes

Understanding the meaning of risk and one’s own risk tolerance is vital to wise investing.

Making Connections

What are some reasons that people could have different risk tolerances? Do these change at different stages of life? For example, someone who is currently financially well off and would like to retire early versus a parent saving for their child’s education.



Teacher Notes

The stocks selected in the Internet Investigations will form student's investment portfolios. Activity 14 will help the students monitor their investment portfolios, and Activity 15 will help students assess their investment portfolios.

Integrating Technology

Students will use the same sites used by experienced investors to complete the Internet Investigation, the first part of their final project. Although it is important for students to learn to navigate such sites on their own, it is crucial for their final project that students be able to obtain the information required.

Pair students with strong research skills with those whose skills need improvement for this Investigation.

	<ul style="list-style-type: none"> In these groups, ask students to choose a partner with which to <i>pairs explore</i> then <i>pairs share</i> the information on page 174, then complete the exercise at the bottom of the page. <i>Class share</i> the allocations of investment for each profile range.
3	<p>Internet Investigation 1: As a class, read about volatility on page 175, "Choosing Stocks from the Toronto Stock Exchange." Practise the Volatility Formula with the class by asking students to use their newspaper stock (Introductory Activity) to calculate volatility for three stocks of their choice.</p> <ul style="list-style-type: none"> Students use <i>pairs coach</i> to complete the Internet Investigation on pages 175 to the top half of 177. Note that students are selecting stocks for their investment portfolios. These stocks will be monitored for six weeks in Activity 14. Once all pairs have completed their chart and questions, have them return to the initial three groups that represented the ranges of risk. Have each group present to the class the similarities and differences between pairs on their investment trends. Before continuing, ask students to make sure they all have both moderate and speculative stocks. In pairs, have students read the expectations for the final project on page 192. Answer any questions about the assignment.
4	<p>Internet Investigation 2: Review with the class the meaning of savings accounts, GICs, treasury bills, and Canada Savings Bonds.</p> <ul style="list-style-type: none"> Students use <i>pairs explore</i> to complete parts 1 and 2 of the Internet Investigation on the bottom half of page 177. Pair share then <i>class share</i> the findings on the variety of investment possibilities. Students work individually to complete exercise 3.

Assessment

- 1 Use *observation* to assess the students' communication skills.
 - 2 Students write a *journal* to explore why someone would be a low, medium, or high risk investor.
 - 3 Students hand in their solution to exercise 1 of "Investment Risk Categories" (page 174).
 - 4 *Presentations* are throughout the Investigations as students explain their reasoning for their investment choice.
 - 5 Students place their Investor Profile Self Test and Internet Investigations into their *portfolios*.
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Terms

- Cash and Cash Equivalents
- Low Risk Investment
- Moderate Risk Investment
- Portfolio
- Risk-Reward Relationship
- Speculative Investment
- Volatility

Your Notes

Activity 14 – Monitoring Your Investment Portfolio

Expectations

Students will:

- reinforce calculating commission and stock prices,
- use spreadsheets to manage an investment portfolio, and
- be introduced to new terms related to money management.

Assessment Tools

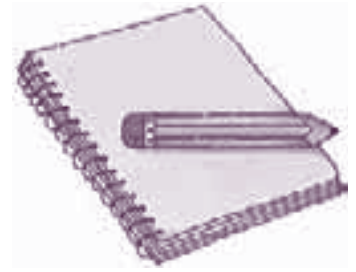
Suggested for use with this activity:

- Portfolio
- Journal
- Observation
- Presentations

Co-operative Group Strategies

- Think-Pair-Share
- Class Share
- Numbered Heads

Instructional Steps	
1	<p>Introductory Activity: Have students remain in the pairs they were in for the Internet Investigations in Activity 13. Ask each pair to review the allocation tables they made in that Activity.</p> <ul style="list-style-type: none"> • Using <i>think-pair-share</i> have students read the information on page 181 “Monitoring Your Investment Portfolio” and discuss the elements of the information on the Summary table shown.
2	<p>Authentic Activity: Ask students to <i>think-pair-share</i> the “discuss” on page 181.</p> <ul style="list-style-type: none"> • Students complete exercise 1 for the speculative stocks they chose in Activity 13 using a copy of the form on page 182. • Ask students to read page 183, and <i>think-pair-share</i> the “discuss” questions. • Students complete exercise 2 for the moderate risk stocks they selected in Activity 13 using another copy of page 182.



Teacher Notes

Students will become aware of how to monitor an investment portfolio. They will collect information on stocks, record and manage this information and provide rationale for their choices.

Making Connections

What types of careers are available in the financial industry? Some examples include stockbrokers, financial analysts, portfolio managers, and investor relations officers.

Your Notes

	<ul style="list-style-type: none"> • <i>Class share</i> the answers to the “discuss” questions on both pages 181 and 182.
3	<p>Investigation: Create groups of four students to read the Investigation on page 184 and then answer the investigation exercises 1 to 7, page 185. Use <i>numbered heads</i> to present solutions.</p> <ul style="list-style-type: none"> • Have students return to their original pairs and complete “Creating Your Own Spreadsheets”, page 185.
4	<p>Closure: As a class, create a summary note, detailing how to monitor an investment portfolio including key terms and formulas.</p>

Assessment

- 1** Students include exercises 1 and 2 on pages 181 and 183 in their *portfolios*.
- 2** Students include their spreadsheet project in their *portfolios*.
- 3** Students write *journals* about how their investment portfolio fared over the six-week period.
- 4** Use *observation* to assess students’ skills for staying on task.
- 5** *Presentations* can be used to assess each presenter’s understanding of key concepts.

Terms

- Commission
- Monitor

Activity 15 – Assessing Your Portfolio

Expectations

Students will:

- construct line graphs from data in spreadsheet form,
- construct analyses and rationale for choices, and
- compare numerical value.

Assessment Tools

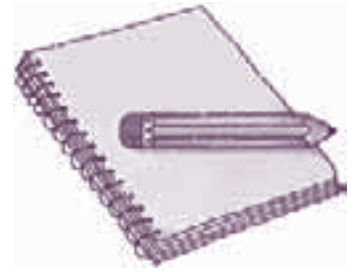
Suggested for use with this activity:

- Portfolio
- Parent/Guardian-Teacher-Student Conference
- Peer Evaluation
- Performance Task

Co-operative Group Strategies

- Carousel Share
- Class Share

Instructional Steps	
1	<p>Introductory Activity: Post students' final spreadsheet of their investment portfolio. Using <i>carousel share</i>, students will review each pair's choice of investment.</p> <ul style="list-style-type: none"> • Students discuss each pair's choice of investments and test their formulas to see if the market price, gain or loss, and percentage gain/loss is correct. • Ask students to determine each other's investor profile level from their choice of stocks.
2	<p>Authentic Activity: In the same pairs from Activity 14, ask students to read page 189 "Assessing Your Portfolio" then answer exercises 1 to 6 on page 190.</p> <ul style="list-style-type: none"> • <i>Class share</i> the answers.



Teacher Notes

Students will consolidate their learning by monitoring and creating an investment portfolio. This activity will occur 6 weeks after Activity 14.

In reality, this 6 week period would extend over many years to maximize profits. Stress the benefits of long term investments to students.

Making Connections

Write a journal entry on investing overall. Indicate how accurate you think the investor profile was, what questions you still have about investing, and what you learned about the risk-reward relationship (i.e. did your speculative stocks really make more money than your moderate risk stocks?).

Your Notes

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| 3 | <p>Investigation: Have students read “Reporting on Your Investment Portfolio” on page 191. Discuss the use of commission.</p> <ul style="list-style-type: none">• In pairs, have students read the expectations for the final project, page 192. Answer questions about possible misinterpretation of what is expected from the assignment.• Ask students to individually complete their final project report, and encourage them to prepare a computer presentation. Note that they will need sufficient time for this task.• Have students then go into their groups that represent their comfort level of investment (Activity 13) to present their reports.• Display each student project on the classroom walls. Cluster the display according to the comfort level of the investor. |
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Assessment

- 1** Have students add their “final project” to their *portfolios*.
- 2** The “final investment project” is a *performance task*.
- 3** Conduct a student-led *parent/guardian-teacher-student conference* with each student to discuss their portfolios. Help students create an agenda for the conference. Their agenda should include:
 - introductions;
 - a summary of what the student learned about money management;
 - highlighting of a few pieces of which the student is especially proud;
 - an invitation for parents to examine the full portfolio and provide feedback (page 200);
 - students write a journal about the conference, indicating whether they felt it was successful, and how they would improve it.